TRS-80®

Radio Shack

TRS-80

MODEL III MICRO COMPUTER

Cat. No: 26-1565

Microfiles

TRSDOS™ OPERATING SYSTEM

MINIDISK

Radio Shack

TRS-80

MICRO COMPUTER SYSTEM

CUSTOM MANUFACTURED IN U.S.A. FOR RADIO SHACK, A DIVISION OF TANDY CORPORATION

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Program Diskette

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Important Note to Model III Users

From time to time, Radio Shack may release new versions of TRSDOS, the TRS-80 disk operating system. Check with your local Radio Shack or the *TRS-80 Microcomputer News* for notices and instructions on these enhanced versions of TRSDOS.

If you receive a new version of TRSDOS, read the following before making any modifications to your existing software packages (applications, languages, or system utilities):

- Do not convert your Radio Shack software packages for use with the new version of TRSDOS unless you are instructed to do so.
- Before converting a Radio Shack supplied Model I software package to a Model III format, check to see if Radio Shack provides a Model III version of the package. If so, you should obtain a copy of that version.
- If you're using several different software packages, press the RESET button whenever you change software.

Thank-You!

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MODEL I / MODEL III

MICROFILES

CAT. NO.
26-1565

Radio Shack™ TRS-80 SOFTWARE

CUSTOM MANUFACTURED IN USA BY RADIO SHACK, A DIVISION OF TANDY CORP.

MICROFILES

Radio Shack®
A DIVISION OF TANDY CORPORATION
FORT WORTH, TEXAS 76102

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Introduction

The Radio Shack® TRS-80™ program Microfiles allows you to design your own filing systems and forms. Without knowing a programming language, you can build a filing system based on the information you want — according to your individual needs. You can recall everything, or just selected items by the use of simple commands. All, or part, of the stored information can be printed, using any format you choose. Whether you are a realtor, doctor, housewife, or car dealer, Microfiles can be tailored to fit your exact needs.

The secret of Microfiles' versatility is found in the unique set of commands that let you specify exactly the way all information will be stored and printed. All of these commands are simple, logical, and easy to use. Some are as short as a single word. Others are longer, sentence-like structures. Once you begin using Microfiles, you will probably never want to return to your old methods of filing.

System Requirements

Model I:

TRS-80 32K Business System which consists of:
- TRS-80 Level II with at least 16K RAM
- TRS-80 Video Display
- TRS-80 16K Expansion Interface
- TRS-80 Disk Drive 26-1160 (Other Drives Optional)
- TRS-80 Printer (Optional)

Model III:

- TRS-80 Model III with 32K RAM
- Other Drives Optional
- TRS-80 Printer (Optional)

Features

Features of the Microfiles system:

1. Permits custom building of all files and the information within the files.
2. Allows file information to be either required or optional.
3. Contains logical, easy-to-use program commands.
4. Allows indexing and locating of all information.
5. Easy error correction and file updating procedures.
6. Expanded keyboard functions for rapid error correction.
7. Highly versatile program for building print or display formats.
8. Quick access to any file information.
9. Program provision for viewing of available disk storage space.

System Diskettes

Diskettes can be damaged through contact with magnetic fields, dust, mishandling, etc. To insure against loss of your program, before you begin running Microfiles, you should make a copy (Backup) of your Program Diskette, and keep the original in a safe place. If you have more than one Disk Drive, you should also prepare (Format) a blank diskette(s) which will be used to store your data.

If you are not familiar with Backup and Format functions, refer to Appendices A and B (at the back of this manual) for instructions.

Note: Once you begin your own files, be sure to make Backup copies of your data diskettes often. For information on Rotating Your Copies, refer to Appendix D at the back of this manual.

How Information is Stored

Unlike most programs, your data is not kept in separate disk files. This program creates a "database" file(s), and it is often a single disk file that is used to store the information for all of your files. As you create new files and store information, Microfiles finds just the right amount of space in the database for you. This ensures that you can store the maximum amount of information in a given amount of disk space. If you use all the space in the database, the program will automatically create another disk file that will act like an extension (or Extent for short) of the original database. This makes it possible for the program to control the use of the entire storage capacity of your system.

Disk Storage Capacities

The storage capacity of your system depends, of course, on the number of Disk Drives that you have. A single Drive system has a storage capacity of approximately 39K. A two Disk Drive system stores 125K. A three Disk Drive system has 210K, and a four Disk Drive system stores 296K. As you can see, storage capacity increases greatly as Drives are added to the system.

Note: If a four Drive system does not have enough storage capacity for all of your files, you can create separate databases on different sets of diskettes and split up your files between the different databases.

Running the Program

Model I Instructions

Follow these steps in exact order:

1. Turn on the Disk Drive(s), Video Display, Printer (if any), and Expansion Interface.

2. Insert the Backup copy of Microfiles in Drive #Ø.

3. If you have more than one Drive, put your data diskette in Drive #1.

4. Turn on the TRS-80 keyboard.

5. When DOS READY appears on the screen, type [F][I][L][E][S] and press [ENTER].

Model III Instructions

Follow these steps in exact order:

1. Turn on the Model III computer (the power switch is located underneath the keyboard, on the right side of the computer, 3" back from the front edge of the keyboard). Turn on any additional drives.

2. Insert the Microfiles Backup disk in Drive Ø (the bottom disk drive, nearest the keyboard).

   Insert the disk with the label up. The small square notch in the disk will be to your left. Close the disk drive door firmly.

   If you are using additional drives, insert formatted data disks in the other disk drives.

3. Press the orange Reset button (in the upper-right corner of the keyboard).

4. The screen will show: Enter Date (MM/DD/YY)? Type today's date and press [ENTER]. (January 9, 1981 = [Ø][1]/[Ø][9]/[8][1] .) The screen will show: Enter Time (HH:MM:SS)? Press [ENTER]. TRSDOS Ready will appear with a a line of dots.

5. Type: [F][I][L][E][S] and press [ENTER] .

The screen will show:

Note: The Release number which appears on your screen will be the current Version number. The disk (included in this package) is the latest version.

The program is now asking you for the Drive Number that you want to use to store your data. If you only have one Drive, type 0 and press ENTER. If you have more than one Drive, type 1 and press ENTER. During the next two or three minutes, the program will create a database file. When it has finished, the screen will show:

The program is now ready to accept your commands.

Microfiles Commands

Commands must be entered following some very precise rules. Take a quick look at the Command Chart (Appendix E). This chart shows how to enter all possible legal commands. It might look confusing at first, but if you follow the examples in this manual, you will soon be entering commands without even referring to the chart.

Valid commands are entered by typing an appropriate word at the left, and then following the lines to the right. When there is a branch in the lines, you may follow whichever path seems reasonable. Type the other words that you encounter as you go along, until you finally reach **ENTER**. At that point, you have entered a valid command. For example, refer to the Microfiles Command Chart once again, and look at commands 4 and 13. Some examples of number 4 might look like this:

DISPLAY FIRST RECIPES RECORD **ENTER**

DISPLAY NEXT RECIPES **ENTER**

DISPLAY REST **ENTER**

Some examples of number 13 might look like this:

BUILD A FILE FOR RECIPES **ENTER**

BUILD FILE CARS **ENTER**

When entering commands, the upper case words on the Command Chart must be spelled exactly as shown. They are "reserved words", and they have special meaning to the program. The "arrow" words represent words that you supply. When you see "file name", for example, you must type the name of a file. When you see nn, you must type a number.

Note: "Reserved words" cannot be used as file names, field names, etc. They have special meaning to the Microfiles program. In the pages that follow, you will be shown how to use all of these commands. Take your time and follow the examples carefully.

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Building a File

By the time you finish this section, you will have a general idea of how the program works. You might even consider starting to use the program for your own files at that point. However, if you take the time to go through the rest of the manual first, the additional knowledge and insight will help you plan your use of the program.

Begin using the program by building a practice file. A file is a collection of records that all contain the same type of information. You must give each file a name. File names (and other names you make up) can be as short or as long as you want — the only restriction is that the name be any series of characters that you can type that does not contain spaces or commas (dashes and other special characters are OK). Also, you may not use a reserved word as a name. Refer to Appendix F for a list of all reserved words.

You type:

[B][U][I][L][D] [A] [F][I][L][E] [F][O][R] [C][A][R][S] and press [ENTER].

The screen will show:

The program is requesting field names for the records under the CARS file. A field is the smallest unit of your information that can be referenced by name. For example, field names that you will be entering for the CARS file are YR/MAKE, COLOR, and PRICE. A record is a collection of closely related bits of information that is referenced as a single, numbered unit. It is stored within a file.

You type:

CARS␣RECORDS␣CONTAIN␣YR/MAKE␣COLOR␣PRICE and press ENTER.

When the program completes most of its commands, it will respond with OK!. This means that the program has done what you asked, and is ready to proceed to another command.

You type:

LIST␣ALL␣FILES and press ENTER.

LIST␣DATA␣FOR␣CARS and press ENTER.

After pressing ENTER, always wait for the flashing cursor before you continue.

The screen will show:

The (R) after each name means this is now Required information. This will be explained in greater detail on page 19.

The first LIST command allows you to see the names of all the files that you have stored in the database. The other LIST command lets you see all of the information (field names, format names, how indexed) about a particular file. This can be handy if you forget.

Note: Arranging records and locating information are unique features of the Microfiles program. The INDEX BY command is used for putting records in a certain order. Since you will be using this command later in the manual, pay close attention to how the price figures are entered.

Continue with the program by building some records for the CARS file. You type (make sure you wait for the flashing cursor):

BUILD␣A␣CARS␣RECORD and press ENTER.

68␣CAMARO (for YR/MAKE) and press ENTER.

GREEN (for COLOR) and press ENTER.

0900 (for PRICE) and press ENTER.

Add another car record. Since you have not specified another file, the program is still in the CARS file. You can shorten the command to:

BUILD␣A␣RECORD and press ENTER.

71␣IMPALA and press ENTER.

DARK␣BLUE and press ENTER.

1700 and press ENTER.

Add a third car, and shorten the command to:

BUILD␣RECORD and press ENTER.

62␣GMC␣TRUCK and press ENTER.

RED and press ENTER.

0650 and press ENTER.

You can shorten the command even more:

[B][U][I][L][D] and press [ENTER].

[7][1][ ][V][W] and press [ENTER].

[Y][E][L][L][O][W] and press [ENTER].

[1][2][0][0] and press [ENTER].

Once you become familiar with the program, you'll probably use the shorthand commands. Try this:

[B] and press [ENTER].

[7][4][ ][C][A][D][I][L][L][A][C] and press [ENTER].

[B][L][A][C][K] and press [ENTER].

[2][0][0][0] and press [ENTER].

You have just finished your first file. Did that last "B" confuse you? See Appendix F for Synonyms. These abbreviations are substitutes for reserved words on the commands chart. For example: B is the same as BUILD; D is the same as DISPLAY.

Review all of the records that you have just created by typing:
[D][I][S][P][L][A][Y][ ][A][L][L][ ][C][A][R][S][ ][R][E][C][O][R][D][S] and press [ENTER].

The screen will show:

As you can see, the records are scrolled very quickly. In order to get a good look at any record, the program has three features that control the scrolling. If you press (and hold) any key (the space bar is easiest), scrolling will stop as long as you hold the key. Try it after typing D A L L and pressing ENTER. The second way to control scrolling is to press SHIFT @ . Try it. You will see that scrolling stops even after you release the key. Any key will start the scrolling again. The third control is the ENTER key. Try pressing ENTER after repeating the above DISPLAY command. This not only stops the scrolling, but also causes the DISPLAY command to terminate.

Note: After pressing SHIFT @ , you can press ENTER to leave the display mode, or press any other key to continue.

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Ending a Session

Now that you have built a practice file and have seen the results. end this session with a very important command. Type [D][O][N][E] and press [ENTER].

To allow fast access to your information, Microfiles keeps as much of your file information in the computer's memory as possible. It doesn't make you wait for the Disk to be updated every time you build a new record. As a result, you must tell the program when you are finished with a [D][O][N][E] command. At that point, it will make sure that all your information has been recorded on the Disk. After all changes have been recorded, DOS READY will appear.

WARNING: Failure to end a session with a [D][O][N][E] command can result in lost information, and could cause the loss of the entire database. Be sure to make Backups often.

If You Need Additional Space

Now that the program has finished, type [D][I][R] and press [ENTER], and then type [F][R][E][E] and press [ENTER]. If you have a single Drive system, you will see that all available space is being controlled by Microfiles. If you have more than one Drive, you will see that there are 16 granules still available on Drive #1. The program will "grab" a maximum of 51 "grans" for each database extension. When more space is required, you can specify any Drive that still has free space. The program will use whatever it can find. The first extent created is called FILE/V0. The next extent will be called FILE/V1, FILE/V2, etc. The program can hold a maximum of 7 extensions.

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Making Changes

Start the program again by typing [F][I][L][E][S] and pressing [ENTER]. Notice that the program has found its database this time, and it is ready for a command right away. Type [L][I][S][T]␣[F][I][L][E][S] and press [ENTER]. Then type: [L][I][S][T]␣[D][A][T][A]␣[F][O][R]␣[C][A][R][S] and press [ENTER].

Begin this session of Microfiles by learning some short-cuts. Look at commands 4, 11, and 12 on the chart in Appendix E. Notice that wherever "file name" is shown, there is a path around it. This is because the program "remembers" the last file name used. If you are entering commands that refer to a file mentioned in a previous command, you do not have to repeat the name. In addition, the DISPLAY command (command 4) also remembers the last option used (first, last, all, etc.). Therefore, if your last command was DISPLAY ALL CARS RECORDS, you can simply type [D] to do the same thing again. Microfiles will remember that ALL was the last option and CARS was the last file name entered. The program also remembers the last record that was referenced (displayed on the screen). If you stop in the middle of a list of records, the program will remember which record was last referenced (displayed on the screen).

The CHANGE command allows you to modify the information in the last record referenced. Modify record number 3 so that the COLOR is green instead of red. You type:

[D]␣[F][I][R][S][T] [ENTER]	(file name mentioned in LIST DATA command)
[D]␣[N][E][X][T] [ENTER]	(shows second record)
[D] [ENTER]	(NEXT remembered — shows record 3)
[C][H][A][N][G][E]␣[C][O][L][O][R] , [ENTER]	(of last record referenced)

The screen will show:

Type [G][R][E][E][N] and press [ENTER]. Then, type [D][ ][T][H][I][S] and press [ENTER].

The screen will show:

Now, CHANGE record number 2 from dark blue to light blue. You type:

D␣FIRST ENTER

D␣NEXT ENTER

C (for CHANGE) COLOR ENTER

LIGHT SHIFT I ENTER

D␣THIS ENTER

As you can see from this CHANGE procedure, you don't have to retype every thing. Refer to Appendix G to learn more about special function keys and editing features.

If you no longer need a record, you can remove one like this. You type:

D␣LAST ENTER

D␣PREVIOUS ENTER

DELETE␣RECORD ENTER

D␣ALL ENTER

Note that DELETE RECORD removes the last record referenced from the file. The display now shows NO SUCH RECORD!! in its place. The next record that you build will reuse its number.

Microfiles can also remove the entire file from the database if told to do so. Since you will probably keep several files in your database, and DELETE FILE will remove the last file referenced, this is the best procedure to follow. Type LIST␣DATA␣FOR␣CARS and press ENTER. Now, look at the display and make sure this is the correct file. Then, type KILL (same as DELETE) FILE and press ENTER. When OK! appears on the screen, type LIST␣FILES and press ENTER.

As you can see, the CARS file has been removed. The space that this file occupied is now available for other files.

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Optional Fields and Adding New Fields

In this section, OPTIONAL and REQUIRED fields will be explained as you build a file that will be used for the remaining exercises and examples in this manual.

There may be times when you won't know all the information for your records at the time you build them. You might want to add some of the information later (with a CHANGE command). When building records, only REQUIRED fields are "prompted" (displayed); OPTIONAL fields are not. You type:

```
B FILE HOMES  ENTER
HOMES CONTAIN DESC., ADDR., OPTIONAL
  NOTES TERMS REQUIRED PRICE  ENTER
LIST DATA  ENTER
```

The screen will show:

As you can see, the REQUIRED fields are indicated by the (R). Now, build some records for the HOMES file and use another short-cut.

Entering Data Using Prices

In order to index the prices properly, you must enter the same number of digits for all prices. If the number is less than 6 digits, enter leading zeros.

The reason you must add leading Ø's has to do with the way the program looks at numbers when sorting. It looks at the first number on the left to decide the order. When Microfiles sees 9ØØ and 1ØØØ, it first sees the 9 and a 1. The program will assign 9ØØ as the larger number. If the program looks at Ø9ØØ and 1ØØØ, it will correctly determine that 1 (in 1ØØØ) is greater than the Ø (in Ø9ØØ). If you plan to sort a list by price or number sequence, be certain each number is the same length.

This is incorrect:	This is the correct method:
1ØØØØØ.ØØ	1ØØØØØ.ØØ
1ØØØØ.ØØ	Ø1ØØØØ.ØØ
1ØØØ.ØØ	ØØ1ØØØ.ØØ
1ØØ.ØØ	ØØØ1ØØ.ØØ
1Ø.ØØ	ØØØØ1Ø.ØØ
1.ØØ	ØØØØØ1.ØØ
.1Ø	ØØØØØØ.1Ø

Now that this concept is fresh in your mind, add these HOMES records. You type:

B □ M A N Y ENTER

4 □ B E D R M □ 2 □ B A T H □ B R I C K ENTER

6 Ø 2 □ O X F O R D □ D A L □ T X ENTER

1 Ø 5 , Ø Ø Ø ENTER

3 □ B E D R M □ 1 □ B A T H □ S T O N E ENTER

4 1 8 □ H A L L □ F T W □ T X ENTER

Ø 6 Ø , Ø Ø Ø ENTER

2 □ B E D R M □ 1 □ 1 / 2 □ B A T H □ W O O D F R A M E ENTER

1 9 1 □ R O W E □ D A L □ T X ENTER

Ø 2 Ø , Ø Ø Ø ENTER

ENTER

You have just built three records for the HOMES file. You can enter as many records as you want this way. To stop, just press ENTER when the program starts another record. If you DISPLAY all these records, the screen will show:

As you can see, fields that don't contain information are shown with ??. You can supply the missing information with the CHANGE procedure described earlier on Pages 15-17. But, say you want to add more records now, and you know the TERMS for most of them. To change the status of any field, follow this procedure. Change the TERMS field. You type:

TERMS□IS□REQUIRED ENTER

LIST□DATA ENTER

The LIST DATA command now shows that TERMS is a required field. You can also make fields OPTIONAL by using the same procedure.

Add an additional field to the HOMES records. Type HOMES□RECORDS□ CONTAIN□OWNER and press ENTER. Then, type LIST□DATA and press ENTER. That's all there is to it. If you display a record now, you will see the new field shown with "??" (just like OPTIONAL fields that do not have information entered yet). Use the CHANGE procedure to add the owner's name to a record or two for practice. Then, build another record or two to see how this new information can be entered as you build additional records. (Note: The more you enter, the better the following examples will be.)

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Locating Records

In this section, you will learn to create INDEXES and FIND records. An INDEX allows you to search records in a particular sequence. When arranging records, the program always starts by "looking" at the first position of the field (the one on the left). Records that start with a space are put at the front of the list. Following the spaces are numbers (zeros first), then letters ("A" first). If more than one record starts with the same character, the second character is used to arrange them, etc.

To arrange your HOMES records by price, type [I][N][D][E][X] [B][Y] [P][R][I][C][E] and press [ENTER]. If you have never indexed the records by a particular field before, it will take the program a short time to do so. Otherwise, you will see OK! immediately. Type [D] [F][I][R][S][T] and press [ENTER]. Record number 3 with a price of Ø2Ø,ØØØ is shown first. Type [D] [N][E][X][T] and press [ENTER]. The next higher figure is shown. Type [D] and press [ENTER], and the next higher priced HOMES record will be displayed.

Important: When indexing numbers, remember how the program "looks" from left to right. All numbers must have the same number of digits in order to index correctly. You could type leading spaces when entering them (so that all numbers have the same number of positions), but that might be more confusing than entering leading zeros as shown.

Once you use an INDEX command, the file will be accessed in the sequence specified until one of the following occurs:

a. You enter another INDEX command.

b. You enter a command that contains a file name.

c. You use a CHANGE command.

When using an index, DISPLAY FIRST will show the record at the front of the list. DISPLAY LAST will show the record at the end. DISPLAY ALL will display all records in sequence, etc.

The main purpose of indexing is to help you find things. Since you are using an index by price, you could ask the program to find a house with a price of $6Ø,ØØØ by typing [F][I][N][D] [Ø][6][Ø][,][Ø][Ø][Ø] and pressing [ENTER]. Notice that this command is similar to the DISPLAY command. The only difference is that the FIND command did not display OK!. This is because there might be several homes worth $6Ø,ØØØ.

The program is waiting to see if you want to go on. If you press [ENTER], you are telling the program, "Yes, this is the record that I was looking for, end the search." The record shown will be the last record referenced. (You can use this procedure to locate records that you want to CHANGE.)

If you press any other key, you are telling the program, "Look at the next record in sequence and let me know what you find." If there is another record that matches 060,000, it will be displayed and the program will wait again. If no other records match, the program will simply say OK!. When this happens, the last record referenced did not match. To see what that record is, you can DISPLAY THIS.

If no record contained exactly 060,000 in its PRICE, the program will display NO EXACT MATCH FOUND. The next higher value can be seen by typing [DISPLAY THIS] . The next lower value can be seen by typing [DISPLAY PREV] .

Note: It is generally a good practice to do a DISPLAY THIS before you do a CHANGE or DELETE.

Unlike many systems, Microfiles allows you to maintain an index for any or all fields in your records. Maintaining several indexes, however, makes the program run slower when you are changing or adding records to a file. If you no longer need an index, you can speed things up by typing [DELETE INDEX BY PRICE] and pressing [ENTER]. The LIST DATA command will keep track of what indexes are being maintained for a specific file.

Other Commands

This section covers some options that you can turn on or off at any time. Once you specify an option it remains in effect until you type DONE.

Clear

The CLEAR option helps unclutter the screen. Watch the screen carefully as you type:

```
TURN CLEAR ON  ENTER
LIST DATA FOR HOMES  ENTER
INDEX BY PRICE  ENTER
DISPLAY FIRST  ENTER
DISPLAY NEXT  ENTER
```

As you can see, this command causes the screen to be cleared just before processing each command.

Before continuing with the program, go back to Page 13 and read the explanation for the DONE command (Ending A Session).

Verify

Whenever you make a number of changes, or are running low on available space, make sure the information is recorded on disk more often than usual. This could be done by typing DONE, and then restarting the program, but that is not very convenient. When you TURN VERIFY ON, the program will simulate DONE after completing each command. This safeguard will make the program run a little slower, but the added protection to your datahase is worth it during critical times.

A command that tells you how much available space you have in the database is FREE. Type FREE and press ENTER.

This is an example of what might be displayed:

Each . , X , and I on the screen represents 256 bytes (characters) of storage space. Free space is represented by the periods. Partially used space is represented by the I's. Each X represents space used to store your files. The X's at the very end of this map represent space that is not available for use. If you plan to build or change a record, there must be at least four periods in a row (more if your file is very large). If there is not enough room, the program will try to create an extension of the database.

When you are running low on space, you should always know which Drives contain unused granules of space (see DOS manual), so that you know which Drive to use for a new extension. Once a new extent has been created, the program will continue as if the Disk's available space has increased. If you check free space, you would see another map displayed below the first. Each is preceded by the number of extent (Ø for FILE/VØ, 1 for FILE/V1, etc.).

Printer

Microfiles supports the use of a line printer. Make sure the printer is turned on and "ready". You type:

TURN PRINTER ON ENTER
LIST DATA FOR HOMES ENTER
PRINT FIRST ENTER
DISPLAY NEXT ENTER
? (for FREE)
TURN PRINTER OFF ENTER
PRINT NEXT ENTER

Note: After you type TURN PRINTER OFF, a PRINT command works just like a DISPLAY command. It ignores the printer, and "prints" on the screen.

After you type TURN PRINTER ON, everything that normally shows on the screen is printed, except for the PRINT command itself and records being DISPLAYED.

In all cases, there will be two lines on the screen for each line on the printer. This gives a maximum print line length of 128 positions. If you have a variable density printer, you can use the FREE command to see if all positions are printing.

Important: Whenever you are using the line printer, make sure that it is "ready". If you begin a printing command without having the printer "ready", the program will "hang up". If this occurs, turn on your printer. If this does not correct the problem, reset the system, and reenter the program, then continue on from there.

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Formats

Format is a procedure that tells the program exactly how you want to display or print information. Microfiles allows you to construct screen, or printer formats, according to your needs by offering three different options for format building. These three options are: Screen, Printer, and Other. They can be applied to any file that you choose.

Every format that you build must have a name.

Note: If you don't build your own formats, the program will simply put each field on a separate line (as you have seen). However, this doesn't work well if you have more than 14 fields.

Screen Formatting

A full screen format allows you to arrange record information for the video display. To build a screen format for the homes file you type:

L I S T ␣ D A T A ␣ H O M E S $ ENTER

Call the format "Full-Screen". (You can use any name you wish when you create your own format.) To continue, type:

B ␣ F O R M A T ␣ F U L L - S C R E E N ENTER

The screen will show:

You type:

[$] (for Screen). Do NOT press ENTER.*

The screen will show:

At this point, you can type anywhere you want on lines 2-14. Refer to Appendix G for keyboard and editing instructions. A literal is anything you want displayed on the screen exactly as you type it. An example of a literal would be a column title. Data is information that will be printed from your records. Periods are used to show where your data goes. You must use enough periods to hold the data. If you must show 6 figure numbers, use 6 periods.

Enter all of the words (literals) and periods (where the data goes) that will be used in the above display. When you are finished, your screen should match the one shown above. You can use the directional arrows and other keyboard functions to move the cursor. (Do NOT press ENTER* until you have completed typing this information).

*Note: If you accidentally press ENTER before you finish typing the required information, type DELETE FORMAT FULL-SCREEN, press ENTER, and start over at LIST DATA HOMES.

After you have completed typing the screen information, press ENTER. The program will then start asking questions. The periods on the screen indicate the areas where you want to display the data from your records. At this point, you must tell the program the field names for each item of data. You type:

DESC. ENTER
ADDR. ENTER
PRICE ENTER
TERMS ENTER
OWNER ENTER
NOTES ENTER

If you enter a field name, it must exactly match the original field name, otherwise Microfiles will not accept the name. A TRY AGAIN message will appear. Type the name in again, exactly as it should be. Add a space at the end of the name to separate the name from the "Try Again" message. This tells Microfiles to look at everything to the left of the space, and try for a match. If you make a mistake, always add this extra space onto the correct field name.

Note that your literals do not have to match your field names at all. In fact, literals are optional. To see your newly constructed Screen Format, type D LAST and press ENTER.

The screen will show:

Note: Although this is a screen format, it can be used with the printer by typing [T][U][R][N]␣[P][R][I][N][T][E][R]␣[O][N] and using the PRINT command instead of DISPLAY.

Type: [B]␣[F][O][R][M][A][T]␣[P][R][I][C][E]-[L][I][S][T]. Answer the screen question by pressing [S].

Now, enter periods until the screen looks like this:

Make sure you leave one space after the first seven periods, and put one period on the second line. Then, press [ENTER]. Answer the questions by typing [P][R][I][C][E] and pressing [ENTER], [D][E][S][C][.] and pressing [ENTER], and [?] and pressing [ENTER]. Then, type [D][I][S][P][L][A][Y]␣[A][L][L] and press [ENTER].

By using this procedure, you can see a lot more records at one time. When you reply to a format question with ?, you are telling the program, "This is the end of the information I require. Don't print anything from this point on." The ? removes the excess blank lines between records. By using this feature, you can set your format anywhere from 1 to 13 lines. You type:

LIST□DATA ENTER
USE□FULL-SCREEN ENTER
D□LAST ENTER
D□LAST□HOMES ENTER

As you can see, the LIST DATA command also shows all format names for a file. The USE command lets you select which format you want the program to "use". The second DISPLAY command shows that whenever you enter a command with a filename (usually the first time you reference a file), the program will use the "line-per-field" format. You can switch from one format to another any time with the USE command.

The fact that you are using a format of your own design does not change the way you make changes to records. You type:

USE□FORMAT□FULL-SCREEN ENTER
D□LAST ENTER
C□NOTES ENTER
NICE□LARGE□LOT ENTER
D□THIS ENTER
USE□PRICE-LIST ENTER
D□FIRST ENTER
C□OWNER ENTER
YOUR□NAME ENTER

You can even change fields that do not show with the format you are using. You can use the CHANGE command to display a field that is not on the screen. Remember you must use the correct name for the field (as shown with LIST DATA), regardless of how information is labeled on the screen.

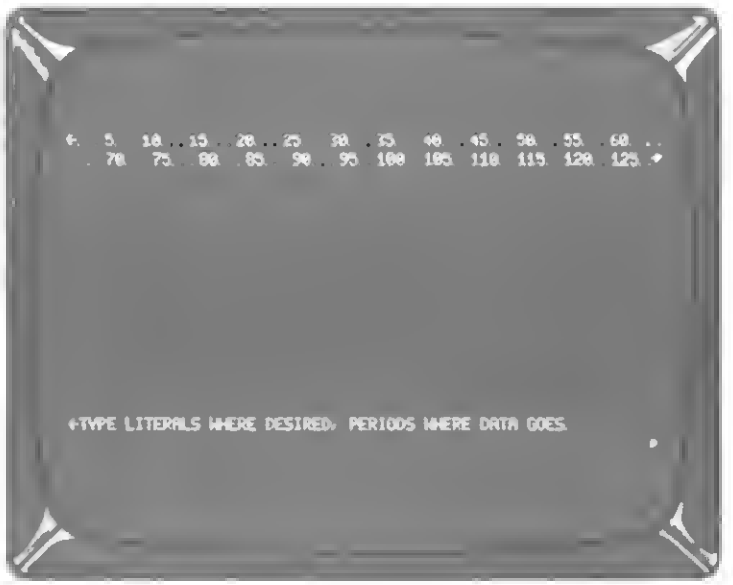
At this point, try building a practice format of your own.

As with anything you store with Microfiles, formats take up space in the database. If you replace a format, or if you don't need a format any more, you should delete the old format you aren't using. Type KILL FORMAT FULL-SCREEN and press ENTER.

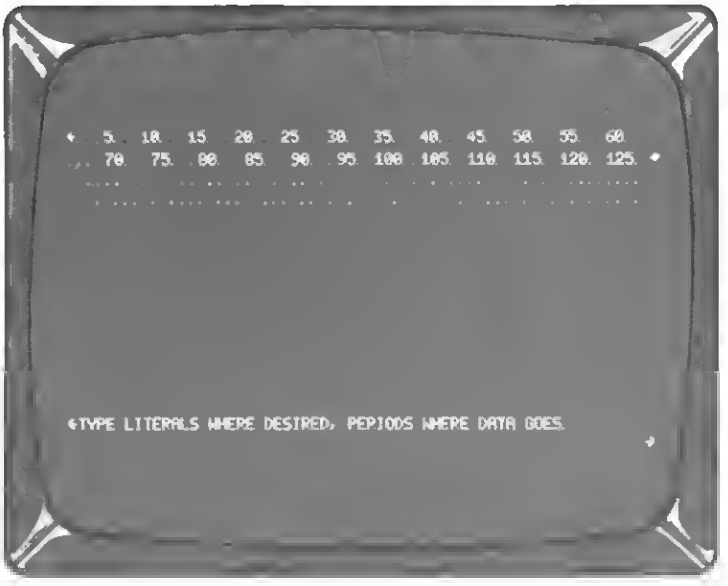
Line Printer Formatting, Headings, and Printer Controls

Almost anything that can be shown on the screen can be printed by using the TURN PRINTER ON command. However, using the formatting techniques you have learned so far, you can never print more than 64 characters per line. This next format will take advantage of the longer lines that are possible on your printer. Type B FORMAT PRINT-LINE (Format name of your choice), press ENTER, and press P. (Do NOT press ENTER.)

The screen will show:



This type of formatting is the same as screen formatting except that every two lines on the screen represent one line on the printer. Type this to help keep the lines straight: [1], [SHIFT][↓], [SHIFT][↓], [2], [SHIFT][↓], [SHIFT][↓], [3], etc. That will mark the beginning of each line for reference. Now, fill the screen until it looks like this:



When everything is correctly typed (and you have removed your reference line numbers), press [ENTER]. You type:

[P][R][I][C][E] [ENTER]

[D][E][$][C][.] [ENTER]

[A][D][D][R][.] [ENTER]

[T][E][R][M][$] [ENTER]

[O][W][N][E][R] [ENTER]

[?] [ENTER]

[T][U][R][N]␣[P][R][I][N][T][E][R]␣[O][N] [ENTER]

[P][R][I][N][T]␣[A][L][L] [ENTER]

[T][U][R][N]␣[P][R][I][N][T][E][R]␣[O][F][F] [ENTER]

By using this technique, you can make formats for the printer that use up to six 128 column lines.

Now, you can make "listings". Put a heading on it so that it looks like a report. Type [B] [FORMAT] [SIMPLE-HDG] (Heading name of your choice), press [ENTER], and press [S]. (Yes, "S"! do NOT press ENTER.)

Now, type [LISTING] [OF] [HOMES] [FOR] [SALE] on the first line, and put a period at the beginning of the fourth line to indicate the end of the information (otherwise the program will put a lot of space between each record. The question mark tells the program to put a blank line between the heading and the listings. Press [ENTER] and type [?]. Then, you type:

[USE] [PRICE-LIST] [ENTER]

[HEADING] [IS] [SIMPLE-HDG] [ENTER]

[TURN] [PRINTER] [ON] [ENTER]

[EJECT] [ENTER]

At this point, the program will advance until it "thinks" it is at the top of a page. Manually adjust the paper to the top of a page. Then, type [PRINT] [ALL] , [ENTER] , [P], and [ENTER].

Repeat the last command until the entire page is full, and you will see that the headings will be repeated at the beginning of the next page automatically. When you are finished, you can use the EJECT command once or twice to feed the forms out so that you can remove your report.

Note: Always use [EJECT] after you type [TURN] [PRINTER] [ON] to synchronize the program with the printer.

Type: [USE] [PRINT-LINE] , press [ENTER], type [P], and press [ENTER].

You can use any format that seems appropriate for headings, with any other format for your detail lines. You can make your report look even better if you build a format (like the one below) for headings using PRINT-LINE for detail lines. (Use the "Printer" Format option.)

The final two commands that deal with controlling the printer are PAGE IS and BREAK AT. The PAGE IS command (number 15 on the command chart) tells the program how many lines to a printed page. At 6 lines per inch, an 11-1/2 inch page is 66 lines long. There are 51 lines on an 8-1/2 inch page. When using headings, the first line of each page will be exactly this number of lines down from the previous page. You can enter any number you want (to cause headings to be printed as often as you want).

The BREAK AT command (number 1 on the command chart) is used to tell the program when to stop printing on one page, and space down to the top of the next. Unless you say otherwise, the program will automatically use PAGE IS 66 and BREAK AT 60. This means headings will be 66 lines apart (11-1/2 inches), but only 60 lines will be printed on a page. That will leave 6 blank lines between pages so you don't print on the perforations between the pages. Before each record is printed, the program compares the number of lines printed so far with BREAK value. If it has already printed enough lines, it moves to the top of the next page. If not, the entire record is printed. The program will never split a record between pages, if you are using a multi-line format. The BREAK value should always be smaller than the PAGE value to allow for this.

Special Formatting

The third way of building formats (Other) is quite different from the previous two. Type [L][I][S][T] [D][A][T][A] [H][O][M][E][S] , [ENTER], [B] [F][O][R][M][A][T] [S][P][E][C][I][A][L] , and press [ENTER]. Press [O]. (Do NOT press ENTER.)

The screen will show:

Hold down the [Z] key until it starts to repeat. You are allowed to type only where the Z's appear. To move the cursor from one point to another, use [SHIFT] [→] or [SHIFT] [←] . (Now use the [CLEAR] key to erase all the Z's.)

This type of format is constructed by entering a series of instructions by "steps". As you can see, the format name is at the top, left of the display. The number to the right of this name is the step number. Every step will include either a literal or the name of a field. The items (instructions) that make up one step are:

LAST ITEM — A Yes or No question that tells the program whether or not to end entries. Typing [Y] means that you have already recorded all of the necessary steps for your format.

NEW LINE — A Yes or No question that tells the program whether or not to print an item (data or literal) on a new line. If you type [N], the entry will start on the same line as the previous item.

STARTING COLUMN — A question that is asking for up to three numeric digits which designate the starting column for an item. If you leave this blank, the item will be printed starting one column after the end of the previous item. Otherwise, it will be printed at least this number of columns from the left of the line. If the previous item ended in column 10 and you tell the program to start at 20, it will start at 20. If the previous item ended at 23, this one will start at 25 (leaving one space between items).

MAXIMUM COLUMNS — A question that is asking for up to three numeric digits which designate the length of a field to be printed. If you leave this blank, the entire contents of a field will be printed, regardless of the length. If you enter a number, only that number of columns (or less) will be printed.

OK TO SPLIT WORDS — A Yes or No question that tells the program whether or not to split words from one line to the next. When the program reaches the end of a line (64 columns on the screen, or 128 if the printer is on), it will normally continue, on the next line, with the next character. If you type [N] it will make sure that words are not divided.

PRINT FIELDNAME — A Yes or No question that tells the program whether or not to print the fieldname. If you type [Y], the actual name of the field will be printed, and then the contents of the field.

DATA OR LITERAL — A single letter question [D] for Data, [L] for Literal) that tells the program to print the contents of a field (data), or exactly what you type (literal). Your fieldname or literal is entered below.

ENTERING FIELDNAME OR LITERAL BELOW — This instruction is asking you to type either the fieldname or literal. If you type [D] (for Data) for the previous question, you type the name of a field from which the data should be taken. If you typed [L] (for Literal), type exactly what you want to appear on the printout.

Continue the program by entering the following format responses. Note that the Step numbers are found at the left, and that the Steps are entered from left to right. You type:

STEP #	LAST ITEM	NEW LINE	START COL	MAX COL	SPLIT	PRINT FIELD NAME	D/L	FIELDNAME OR LITERAL INFO	
1	N	Y	SHIFT →	SHIFT →	Y	N	L	THE HOME AT	ENTER
2	N	N	SHIFT →	SHIFT →	N	N	D	ADDR.	ENTER
3	N	N	SHIFT →	SHIFT →	N	N	L	COSTS	ENTER
4	N	N	SHIFT →	SHIFT →	N	N	D	PRICE	ENTER
5	Y								ENTER

After the response OK! has been displayed on the screen, DISPLAY ALL of your records using this format. Notice PRICE always starts one position after the word COSTS. Since you did not enter any starting columns, each item simply starts printing where the previous one ends. If you specify a starting column and a maximum number of columns for every item, it is possible to create every format that you have seen so far. Using this method, you can design a format with as many lines as you need. If you don't indicate a NEW LINE, you can print information from several records on each line. If you want to explore some other possibilities, try the examples that follow:

Example 1:
Type: B□FORMAT□FILE←DUMP, press ENTER, and press O.
Type the following information (using the same entry procedure as the previous example). You type:

STEP #	LAST ITEM	NEW LINE	START COL	MAX COL	SPLIT	PRINT FIELD NAME	D/L	FIELDNAME OR LITERAL INFO	
1	N	N	SHIFT←	SHIFT←	N	N	L	***	ENTER
2	N	N	SHIFT←	SHIFT←	N	N	D	DESC.	ENTER
3	N	N	SHIFT←	SHIFT←	N	N	D	ADDR.	ENTER
4	N	N	SHIFT←	SHIFT←	N	N	D	PRICE	ENTER
5	N	N	SHIFT←	SHIFT←	N	N	D	TERMS	ENTER
6	N	N	SHIFT←	SHIFT←	N	N	D	OWNER	ENTER
7	N	N	SHIFT←	SHIFT←	N	N	D	NOTES	ENTER
8	Y								ENTER

After OK! has been displayed on the screen, DISPLAY ALL of your records using this format. By using this technique, you can display or print your entire file in a very small amount of space.

Example 2:
Type: B□FORMAT□FORM←LETTER , press ENTER, and press O.
Type the following information (using the same entry procedure as the previous examples). You type:

STEP #	LAST ITEM	NEW LINE	START COL	MAX COL	SPLIT	PRINT FIELD NAME	D/L	FIELDNAME OR LITERAL INFO	
1	N	Y	20	SHIFT←	N	N	L	HOMES□SERVICE	ENTER
2	N	Y	SHIFT←	SHIFT←	N	N	L		ENTER
3	N	Y	SHIFT←	SHIFT←	N	N	D	OWNER	ENTER
4	N	Y	SHIFT←	SHIFT←	N	N	L		ENTER
5	N	Y	5	SHIFT←	N	N	L	YOUR□HOME□AT	ENTER
6	N	N	SHIFT←	SHIFT←	N	N	D	ADDR.	ENTER
7	N	N	SHIFT←	SHIFT←	N	N	L	HAS□BEEN□SOLD.	ENTER

STEP #	LAST ITEM	NEW LINE	START COL	MAX COL	SPLIT	PRINT FIELD NAME	D/L	FIELDNAME OR LITERAL INFO	
8	N	Y	SHIFT →	SHIFT →	N	N	L	IT□HAS□BEEN□	
								A□PLEASURE□	
								SERVING□YOU	ENTER
9	N	Y	5	SHIFT →	N	N	L		ENTER
10	N	Y	SHIFT →	SHIFT →	N	N	L		ENTER
11	N	Y	40	SHIFT →	N	N	L	SINCERELY,	ENTER
12	N	Y	40	SHIFT →	N	N	L	YOUR□AGENT	ENTER
13	N	Y	SHIFT →	SHIFT →	N	N	L		ENTER
14	N	Y	SHIFT →	SHIFT →	N	N	L		ENTER
15	N	Y	SHIFT →	SHIFT →	N	N	L		ENTER
16	Y								ENTER

Use this to DISPLAY a record or two on the screen. It is a simple example, but you should now have an idea of how this format could be used.

Intentionally Blank

Starting Your Own Files

All of the Microfiles features have been discussed. When you are ready to begin your own system, simply use the LIST ALL FILES command, and then DELETE the HOMES file and any other practice files that you might have created. Then you are ready to start your own filing system.

Intentionally Blank

How to Format Your Data Diskettes

Model I Instructions

This process prepares blank diskettes for use on the Disk system. All data diskettes must be formatted before being used. Here's how to do it:

1 — Insert a blank diskette in Drive #1.

2 — Do the following exactly as shown:

The screen will show:	You type:
DOS READY	FORMAT and press ENTER
WHICH DRIVE etc.	1 and press ENTER
DISKETTE NAME	MICRODAT or DATA1 and press ENTER
CREATION DATE?	01/01/80 and press ENTER
MASTER PASSWORD	PASSWORD and press ENTER
LOCK OUT ANY TRACKS?	NO and press ENTER
HIT "ENTER" TO CONTINUE	Press ENTER

Model III Instructions

A disk that will only be used for data storage must first be formatted. You can use a new blank disk or re-use an old disk. A formatted data disk does not have a TRSDOS (Disk Operating System). It can be used in Drive Ø with certain programs, but, it will most often be used in the other disk drives. Programs that require data disks will contain instructions on the use of the disks.

Here is the step-by-step Format procedure: (If the computer is on, and at TRSDOS Ready, you may skip steps 1, 4, and 5.)

1. Turn on the Model III computer (the power switch is located about 3" from the front, on the right side of the computer, underneath the edge). The bottom disk drive light will flash briefly. The screen will stay dark. This is normal.

2. Insert a TRSDOS (or Program disk) in Drive Ø (the bottom disk drive, nearest the keyboard). Insert the disk with the label up. The small square notch in the disk will be to your left. Close the disk drive door firmly.

3. Insert the blank disk (or a disk you wish to re-use) in Drive 1 (the upper drive), and close the drive door.

4. Press the orange Reset button (in the upper-right corner of the keyboard).

5. The screen will show: Enter Date (MM/DD/YY)? Type today's date and press [ENTER]. (January 9, 1981 = [0][1][/][0][9][/][8][1]) The screen will show: Enter Time (HH:MM:SS)? Press [ENTER]. TRSDOS Ready will appear with a line of dots.

6. Type: [F][O][R][M][A][T] and press [ENTER]. The screen will show: Format Which Drive? Type [1] and press [ENTER].

7. The screen will show: Diskette Name? You have up to 8 characters to name the disk. The first character must be a letter and you can not use spaces or punctuation. Typical names might include: DATADISK, DATA1, SEPTDATA, DATA1981. Type the name and press [ENTER].

8. The screen will show: Master Password?. Type [P][A][S][S][W][O][R][D] and press [ENTER].

   If you are re-using an old disk, the computer may show: Diskette contains DATA. Use Disk or not? If this question appears, type [Y] and press [ENTER]. The computer will start formatting the disk in Drive 1.

9. After the disk is formatted, you will return to TRSDOS Ready. Remove the formatted disk from Drive 1 and mark the name on the disk. Use a felt-tip marking pen. Pencils and ball point pens can damage the disk surface.

How to Backup Your Diskettes

Model I Instructions:

Use this procedure EXACTLY:

1 — Turn on everything except the TRS-80 keyboard. If this is the first time you've ever used the Radio Shack Disk System, refer to the Disk Operating System Manual for detailed instructions.

2 — Insert a new, blank diskette in Drive #1 with the diskette notch up, label to the right.

3 — Close the door on Drive #1.

4 — Insert the Program diskette in Drive #Ø with the notch up, label facing right, and close the door. (Drive #Ø is the first Drive connected to the interface.)

5 — Turn on the TRS-80 Keyboard. (The switch on the right rear apron.)

The screen shows:	You type:
DOS READY	[B][A][C][K][U][P] and press [ENTER]

6 — Remove the Program disk from Drive Ø. If you wish to back up the Program disk, leave it in Drive Ø.

7 — Insert the Data disk in Drive Ø and close the door.

The screen shows:	You type:
SOURCE DRIVE NUMBER?	[Ø] and press [ENTER]
DESTINATION DRIVE NUMBER?	[1] and press [ENTER]
BACKUP DATE (MM/DD/YY)	Today's date and press [ENTER]

The computer will format the blank disk, and transfer the data to the new diskette. When it's finished, the screen will show:

BACKUP COMPLETED
HIT 'ENTER' TO CONTINUE.

If you do not get this message, remove diskettes and go back to step 1.

Don't press the [ENTER] key just yet.

Remove the diskette from Drive #Ø and place it in its protective sleeve. Place the Program diskette in Drive #Ø, and close the door. You can now press [ENTER]. If the screen shows: DOS READY, your Backup was a success.

Model III Instructions

A Backup consists of two processes. Format (or prepare) a blank disk for information storage. (You can also re-use an old disk.) Backup (or copy) all the information from the original disk to the new formatted disk.

Here is the step-by-step Backup procedure: (If the computer is on, and at TRSDOS Ready, you may skip steps 1, 4, and 5.)

1. Turn on the Model III computer (the power switch is located about 3" from the front, on the right side of the computer, underneath the edge). The bottom disk drive light will flash briefly. The screen will stay dark. This is normal.

2. Insert the original Program disk (to be copied) in Drive Ø (the bottom disk drive, nearest the keyboard). Insert the disk with the label up. The small square notch in the disk will be to your left. Close the disk drive door firmly.

3. Insert the blank disk (or a disk you wish to re-use) in Drive 1 (the upper drive), and close the drive door.

4. Press the orange Reset button (in the upper-right corner of the keyboard).

5. The screen will show: Enter Date (MM/DD/YY)? Type today's date and press [ENTER]. (January 9, 1981 = [Ø][1][/][Ø][9][/][8][1]) The screen will show: Enter Time (HH:MM:SS)? Press [ENTER] . TRSDOS Ready will appear with a line of dots.

6. Type: [B][A][C][K][U][P][ ][:][Ø][ ][:][1] and press [ENTER].

7. The screen will show: SOURCE Disk Master Password?. Type: [P][A][S][S][W][O][R][D] and press [ENTER] .

   If you are re-using an old disk, one or two additional questions may appear, depending on the previous contents of the disk. You may see:

   Diskette contains DATA. Use Disk or not?

   or:

   Do you wish to RE-FORMAT the diskette?

   If the questions appear, type [Y] and press [ENTER] for each question.

   The computer will format the disk (in Drive 1), read data from the program disk (in Drive Ø), then transfers the data to the copy disk (in Drive 1).

8. When the Backup is done, you'll see: ** Backup Complete **. You will return to TRSDOS Ready. The disk in Drive 1 is now identical to the program disk in Drive Ø.

9. Remove the original program disk and insert the new copy in Drive Ø. Store the original program disk in a safe place. Write the program name on the copy, using a felt-tip pen.

Backing Up Data Disks

Model III Instructions

Here is the step-by-step Data Disk Backup procedure: (If the computer is on, and at TRSDOS Ready, skip steps 1, 4, and 5.)

1. Turn on the Model III computer (the power switch is located about 3" from the front, on the right side of the computer, underneath the edge). The bottom disk drive light will flash briefly. The screen will stay dark. This is normal.

2. Use a TRSDOS disk (or a program disk that contains TRSDOS) in Drive Ø (the bottom disk drive, nearest the keyboard). Insert the disk with the label up. The small square notch in the disk will be to your left. Close the disk drive door firmly.

3. Insert the blank disk (or a disk you wish to re-use) in Drive 1 (the upper drive), and close the drive door.

4. Press the orange Reset button (in the upper-right corner of the keyboard).

5. The screen will show: Enter Date (MM/DD/YY)? Type today's date and press [ENTER]. (January 9, 1981 = [Ø][1]/[Ø][9]/[8][1]) The screen will show: Enter Time (HH:MM:SS)? Press [ENTER]. TRSDOS Ready will appear with a line of dots.

6. Type [B][A][C][K][U][P][ ]:[Ø][ ]:[1] and press [ENTER].

7. The screen will show: SOURCE Disk Master Password?. Wait for the red light on the drive door to turn off. Remove the disk from Drive Ø, and insert the data disk you need to copy. Type: [P][A][S][S][W][O][R][D] and press [ENTER].

   If you are re-using an old disk, one or two additional questions may appear, depending on the previous contents of the disk. You may see:

   Diskette contains DATA. Use Disk or not?

   or:

   Do you wish to RE-FORMAT the diskette?

   If the questions appear, type [Y] and press [ENTER] for each question.

   The computer will format the disk (in Drive 1), read data from the disk (in Drive Ø), then transfers the data to the copy disk (in Drive 1).

8. After the Backup is finished, the screen will show: ** Backup Complete **. The disk in Drive 1 is now identical to the data disk in Drive Ø.

9. Remove the original data disk from Drive Ø. Store the original data disk in a safe place. Mark the new copy with the correct data disk name, using a felt-tip marking pen. You can now insert a program (or TRSDOS) disk in Drive Ø and press the Reset button to return to TRSDOS Ready.

Taking Care of Your Diskettes

1. Since all of your information is going to be stored on these diskettes, you'll need some more diskettes to make extra "safety copies", just in case. You can start with a box of ten, and rotate them to insure you always have a reserve copy of your program and your files.

2. Keep the diskette in its envelope if you're not using it.

3. Handle diskettes carefully, just as you would a high fidelity record. Do not touch any of the exposed surfaces. Hold them by the protective cover only.

4. Keep them away from cigarette ashes, dust, motors, heat, direct sunlight, and power transformers, and anything magnetic.

5. If you write on the label, use a soft, felt-tip pen, and don't press hard.

6. Store them vertically in a file folder or on a shelf, as you would a phonograph record collection. Don't stack them, bend them, or scratch them.

Rotating Your Copies

When you're using your system, get in the habit of making copies of your diskettes at the end of the day. The next day, use the copies that you just made. It's a very inexpensive form of insurance. You might consider even carrying the Backup copies home at night in case of fire, theft, or vandalism.

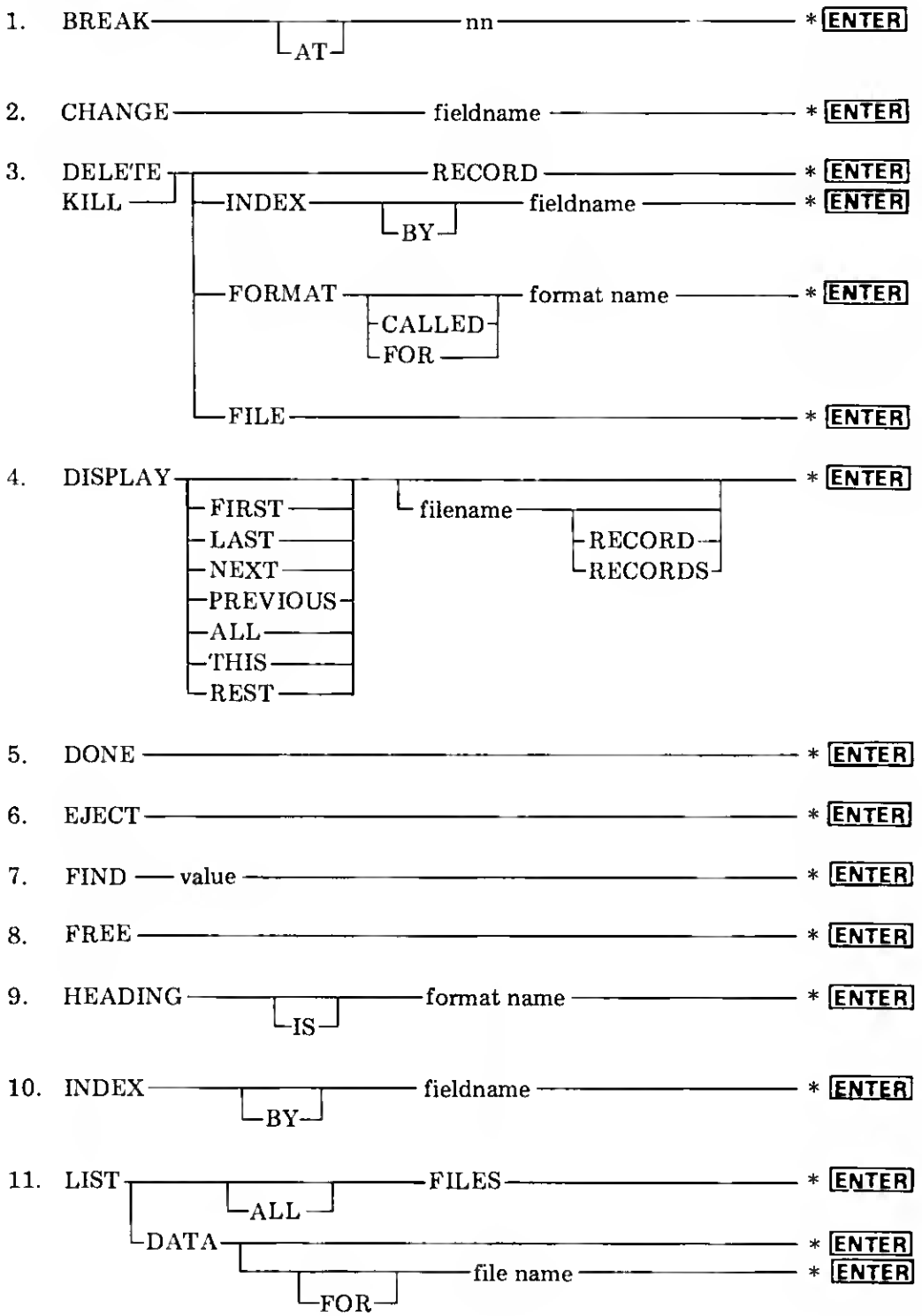
Here's an example, using 2 extra diskettes:

Day One		Day Two	
Prog.	Copy Onto	Prog.	Copy Onto
			
Data	Copy Onto	Data	Copy Onto
			

On the second day, you will take A, and B, and use them as blank diskettes to copy C and D. If something happens to a diskette, you still have the last Backup copies to rely on. Four extra diskettes will give you three days of record protection.

Note: The most effective method for erasing diskettes is by using a Radio Shack Bulk Tape Eraser, Stock No. 44-210.

Command Chart



12. BUILD [A / AN / THE / MANY] file name [RECORD / RECORDS] ENTER

13. BUILD [A / AN / THE] FILE [FOR / OF] file name * ENTER

14. BUILD [A / AN / THE] FORMAT [CALLED FOR] format name * ENTER

15. PAGE [IS] nn * ENTER

16. PRINT — (see DISPLAY)

17. TURN [PRINTER / CLEAR / VERIFY] [ON / OFF] ENTER

18. USE [THE] [FORMAT] format name * ENTER

19. field name [IS] [OPTIONAL / REQUIRED] * ENTER

20. file name [RECORD / RECORDS] [CONTAIN / CONTAINS] [REQUIRED / OPTIONAL] field name ENTER

*Everything typed from this point on is ignored.

Appendix F—Reserved Words and Synonyms

Reserved Words (Alphabetically Listed)

(Followed by synonym in parentheses, if any)

A
ALL
AN
AT
BREAK
BUILD (B)
BY
CALLED
CHANGE (C)
CLEAR
CONTAIN
CONTAINS
DATA
DELETE (KILL)
DISPLAY (D)
DONE
EJECT
FILE
FILES
FIND (F)
FIRST
FOR
FORMAT
FREE (?)
HEADING
INDEX (I)
IS
LAST
LIST (L)
MANY
NEXT
OF
OFF
ON
OPTIONAL (O)
PAGE
PREVIOUS (PREV)
PRINT (P)
PRINTER
RECORD
RECORDS
REST
REQUIRED (R)
THE
THIS
TURN
USE
VERIFY

Synonyms (Alphabetically)

(Followed by equivalent reserved word)

? (FREE)
B (BUILD)
C (CHANGE)
D (DISPLAY)
E (EJECT)
F (FIND)
I (INDEX)
KILL (DELETE)
L (LIST)
O (OPTIONAL)
P (PRINT)
PREV (PREVIOUS)
R (REQUIRED)

Note: Reserved words and their synonyms may not be used for user defined names.

Keyboard Functions

The flashing cursor is transparent. It does not erase the characters that it moves over. Arrows "point at" unprotected areas and away from protected areas. All keys repeat when held down.

→123←	Unprotected area — you can type here.
←123→	Protected area — you can not type here.
←	Moves cursor to left.
→	Moves cursor to right.
↑	Moves cursor up.
↓	Moves cursor down.
SHIFT →	Moves cursor to first position of next unprotected area.
SHIFT ←	Moves cursor to first position of area containing cursor. If already there, it moves to first position of previous unprotected area.
SHIFT ↑	Moves cursor to top left corner of the screen.
SHIFT ↓	Moves cursor to first position of next line.
CLEAR	Clears all unprotected areas.
SHIFT CLEAR	Clears from the cursor's position to the end of the unprotected field containing the cursor. Then cursor moves to first position of next unprotected area.
SHIFT D	Deletes character at present cursor position. The rest of the characters shift to the left to replace it.
SHIFT I	Inserts a space at the present cursor location. The character that was under the cursor (and those to the right) shift right to make room.

Intentionally Blank

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